

# ***REAL TIME COLLABORATION CONCEPT TESTING***

Ravi Raman

RTC Product Planning

Version 092404

MICROSOFT CONFIDENTIAL

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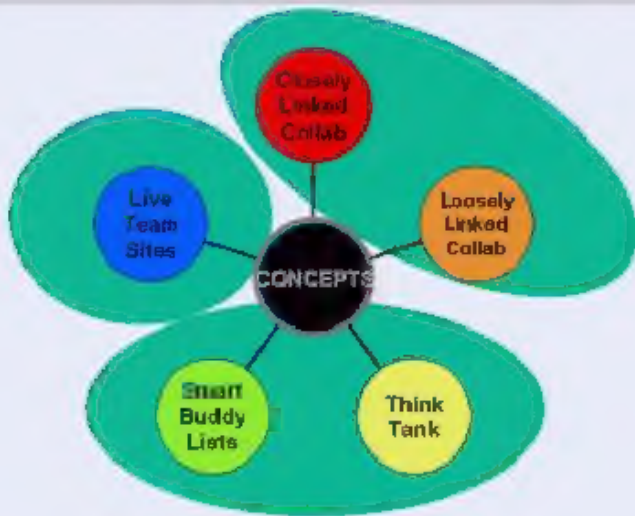
## ***THANKS TO.....***

- ❖ Bernardo Caldas
- ❖ David Nichols
- ❖ Ed Simnett
- ❖ Feliz Montpellier
- ❖ Joe Fletcher
- ❖ John Licata
- ❖ Paul Haverstock
- ❖ Pavel Curtis
- ❖ Tom Pease
- ❖ Yong Rui
- ❖ Ying Wang
- ❖ Anuraag Tiwari

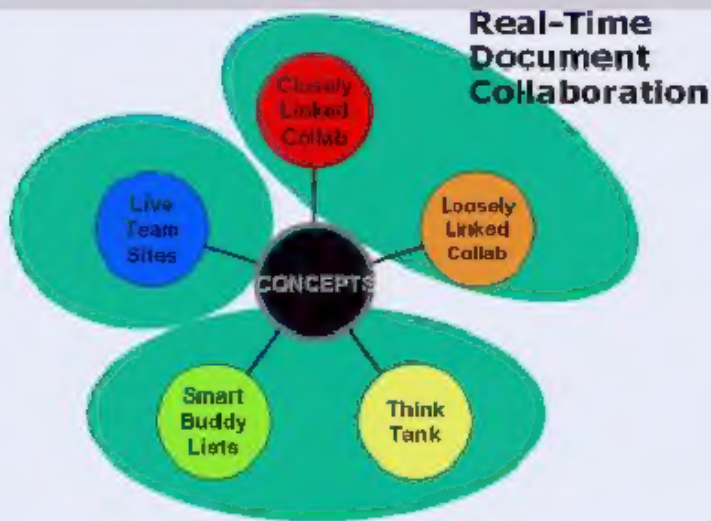
## WHY SHOULD WE CARE?



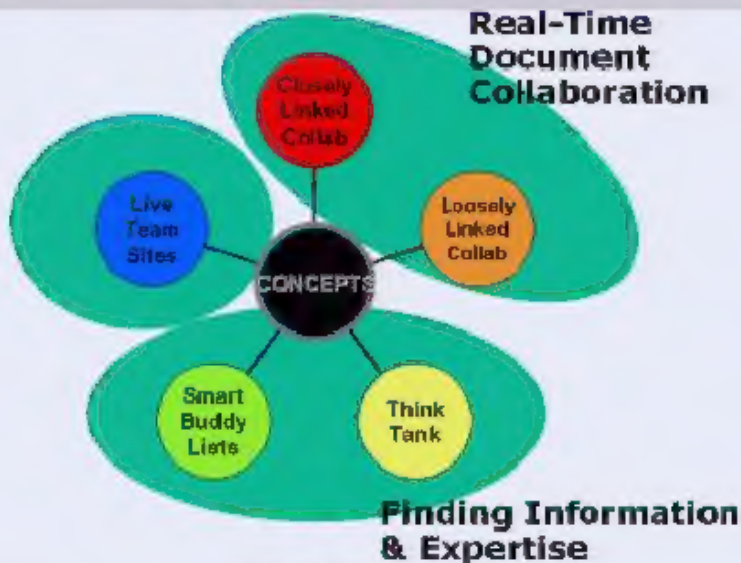
## CUSTOMER PROBLEMS AND POTENTIAL SOLUTIONS



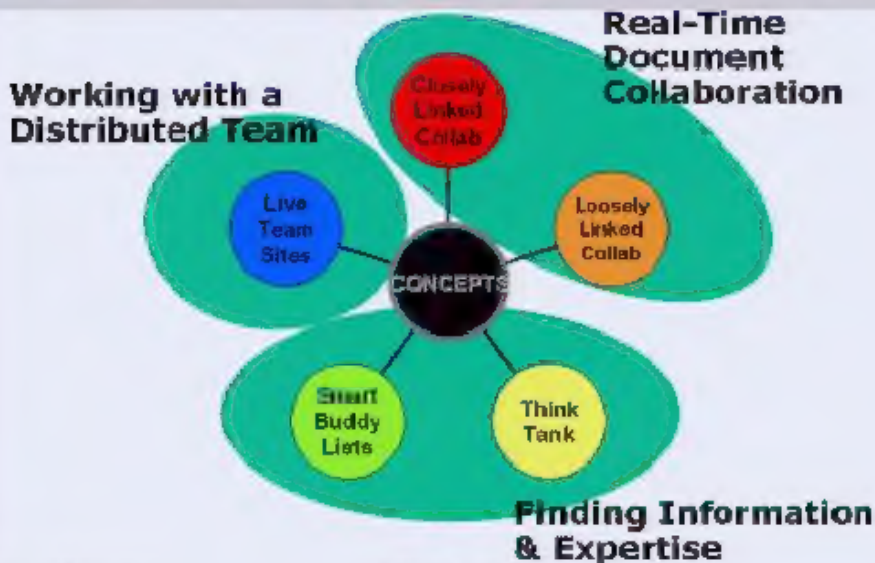
## CUSTOMER PROBLEMS AND POTENTIAL SOLUTIONS



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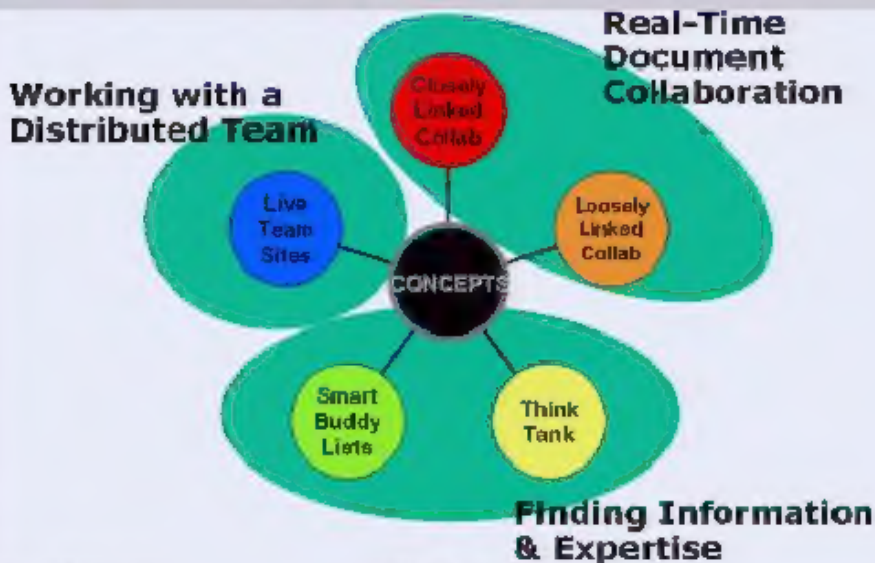


## CUSTOMER PROBLEMS AND POTENTIAL SOLUTIONS





## CUSTOMER PROBLEMS AND POTENTIAL SOLUTIONS



# ***RESULTS OF RESEARCH***

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# ***WHAT WE HEARD***

- ❖ **Priority of Pain Points**
- ❖ **Relevance of Concepts**
- ❖ **Rating of Capabilities**
- ❖ **Key Benefits**
- ❖ **Key Drawbacks**
- ❖ **Usage Scenarios**
- ❖ **Audience Differentials**

# ***HIGH LEVEL THEMES***

- ❖ **Positive Feedback on RTC Potential**
- ❖ **Even Higher Acceptance for RTC Users**
- ❖ **Critical Mass of Use Impacts Acceptance**
- ❖ **Maintaining Control is Critical**
- ❖ **Size Matters**

# OVERALL RANKING OF PAIN POINTS IN PRIORITY ORDER

## Difficult to...

- 1 Collaborate and stay in touch with remote team members
- 2 Find and interact with people or experts inside my company
- 3 Initiate spontaneous/ad-hoc meetings
- 4 Work together with others on the same content or document
- 5 Setup and/or initiate a collaborative session
- 6 Smoothly add resources or people to a collaborative session
- 7 Find and interact with people or experts outside my company

❖ **However, spread between average ranking for #1-#7 is very small (<1), must consider differentials by audience to draw conclusions**

# ***PAIN POINT DIFFERENCES EXIST ACROSS AUDIENCE TYPES***

## **❖ RTC Users and Non-Users**

- RTC Users have the most difficulty with the working aspects of collaborating. This includes working on documents with remote team members and in ad-hoc situations.

Non-RTC Users have the greatest difficulty in accessing the resources they need to collaborate both inside and outside the organization. But are more satisfied with the means for collaboration they currently use once the resources are found.

## **❖ BDMs and IWs**

BDMs find more issues with initiating spontaneous meetings and connecting with resources inside their organization.

- IWs find a greater challenge in working on documents or collaborating with remote team members.

# OVERALL RANKING OF PAIN POINTS IN PRIORITY ORDER

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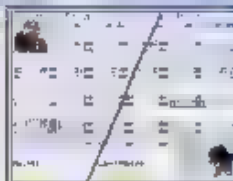
# RATINGS OF CONCEPTS ACROSS AUDIENCES

	Closely Linked	Think Tank	Loosely Linked	Live Team Sites	Smart Buddy Lists
<b>Overall</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Users (All)	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Users (Workers)	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>5</b>
Non-Users (All)	<b>1</b>	<b>3</b>	<b>N/A</b>	<b>2</b>	<b>4</b>
Non-Users (Workers)	<b>1</b>	<b>2</b>	<b>N/A</b>	<b>3</b>	<b>4</b>
BDMs	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>5</b>

Projected		Projected		Plan		Projected		Projected	
Q4		Year Total		Q4		Year Total		Q4	
440,000	\$	1,676,000	\$	1,545,000	\$	440,000	\$	1,676,000	\$
410,000	\$	336,800	\$	420,000	\$	410,000	\$	1,336,800	\$
240,000	\$	272,000	\$	1,082,000	\$	240,000	\$	272,000	\$
150,000	\$	143,000	\$	751,000	\$	150,000	\$	143,000	\$
425,000	\$	400,000	\$	1,565,000	\$	425,000	\$	400,000	\$
400,000	\$	380,000	\$	261,000	\$	400,000	\$	380,000	\$
340,000	\$	400,000	\$	1,380,000	\$	340,000	\$	400,000	\$
254,000	\$	230,000	\$	1,275,000	\$	254,000	\$	230,000	\$
1,215,000	\$	1,195,000	\$	960,000	\$	1,215,000	\$	1,195,000	\$

RECAST

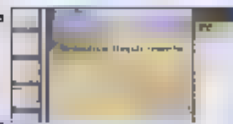
SALES FORECAST



CLOSELY MONITOR

CDC: HDPHAFADNM

The image shows a document with a grid of boxes. The top row has a large box on the left and a smaller box on the right. The middle row has a box on the left and a larger box on the right. The bottom row has a box on the left and a larger box on the right. The text within the boxes is mostly illegible due to blurring and low resolution. Some visible text includes "1. The following information is required for the purpose of the..." and "2. The following information is required for the purpose of the...".



133

#### Production Methods

[illegible]

10. 10. 10. 10.

# Resource Requirements

## I Financial Requirements

- Funding or project finance
- Budget for co-marketing with partners

## II External Requirements

- Components from suppliers
- Services from partners
- Recruitment of staff

## III Other Requirements

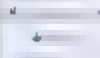
- Technology development
- Personnel and training



People



Documents



Chat +

2/20

Link & copy



# CLOSELY LINKED COLLABORATION

"Most collaboration tools are complicated this isn't!"

Average Rating

5.9

Smart  
Presence

8.1

VoIP

5.0

Co-editing

6.

Tagged  
Edits

6.5



## Raves

- Most spontaneous positive reactions of all
- Most indicative of how people define RTC
- Relevant across broad range of situations
- Reasonable to assume people would work on the same document at the same time
- Least amount of controversy
- Value was clear
  - Less doc forking and merging
  - Faster decisions
  - Clarity of context
  - Ownership
- Tracking edits a CRITICAL requirement



## Rants

- Not realistic with >3-5 people at a time
- Fear of being overrun w/ invites
- Not convinced on sound quality of VoIP (some swayed if quality was assured)
- No anonymity
- Need to think on the spot
- Confidentiality → restrict what's seen



## Other Insights

- The idea of a RingMaster: someone who managed the interaction and resolving editing conflicts, might be required to make this work in larger groups (>3 people)

# Resource Requirements

## I Financial Requirements

- 1 Funding for production
- 2 Budget for co-marketing with distributors

## II External Requirements

- 1 Components from suppliers
- 2 Services from partners
- 3 Recruits distributors

## III Other Requirements

- 1 Technology development
- 2 Personnel requirement



People



Documents



Chat +

CRM

Link to CRM



2014 Midterm Exam - Hong Kong

[illegible]

Figure 1. Schematic diagram of the experimental setup.

The screenshot shows a presentation slide titled "Resource Requirements". The slide content is mostly illegible due to blurring, but it appears to contain a list of items or a table. On the right side of the slide, there is a sidebar with a search bar and a list of items, including "PDF". At the bottom of the screen, there is a navigation bar with several icons.

1. *Let's go to the beach.*



Closely Linked Concept



**Loosely Linked Concept**



Think Tank Concept



Smart Buddy List Concept



Live Team Sites Concept





## BUSINESS PLAN REVIEW PORTAL

### Home

Documents

Shared Documents

Contacts

Links

Discussions

General Discussion

Keys

#### Announcements

**Business plan review meeting next week!**

5/2/2004

by Melissa Smith BUS MANAGEMENT

Please have all your edits to the document by the end of this week. Thanks

☐ Add new announcement

#### Shared Documents

Type Name

Marketing Plan

Budget Book

Revenue Projections

Business Plan

☐ Add new document

Modified By

Melissa Smith (BUS MAN)

Melissa Smith (BUS MAN)

Melissa Smith (BUS MAN)

Melissa Smith (BUS MAN)



People



Documents

Chat



# Resource Requirements

## I Financial Requirements

1. Funding for product launch
2. Budget for co-marketing with partners

## II External Requirements

Components from suppliers

1. Services from partners

Recruit distributors

## III Anticipated Requirements

Technology dependencies

Personnel requirements



People



Documents



# LOOSELY LINKED COLLABORATION

"Always on" documents offer the ability to keep up to date and prepared"

Average Rating	Doc as a Place	Visual Indicators	View Redirection	Persistent Chat	Trust Control	Doc-based Presence
5.6	5.8	5.5	5.8	5.3	6.6	4.4



## Raves

- Treating a doc as a place, with the ability to collaborate when convenient
- Control is a key factor: trust/control was a must-have capability and enhanced the overall positive perception of this concept
- Great way to collaborate on large docs
- Persistent Chat provides context for future collaborators
- Viewed as a more scalable mode of collaborating than closely linked concept
- BDMs found the Doc-Based Presence more valuable: to keep track of what team members are working on



## Rants

- Document alerts are a polarizing issue: concern over spamming for some people
- I/Us consider this intrusive (big brother syndrome)
- Concerns with mid/large group interaction
- Too many chefs in the kitchen (people don't want to hear unsolicited input)




## Other Insights

- Effectiveness of this tool may depend upon the type of business (e.g., could be limiting for those whose culture is not one of sharing or who have extensive hierarchies)


## Conversation

People


 Amy Initiative

 Mary

Recent Timesheet

 Proposal to P&G

 P&G Timeline & Budget

 [originalproposaltemplate](#)

chat

Amy says

"Hi Mary, we are looking for a partner for our new work bundle. If you are interested, please let me know."

## History

10:00 AM - 10:00 AM



## Search

Brand Research RFP, Mary M.

Quick

Search

Auto Results

 Mary M.

 Tom

 Peter

 Dan

 Proposal to P&G

 Pricing Tradeoffs

 Brand Research

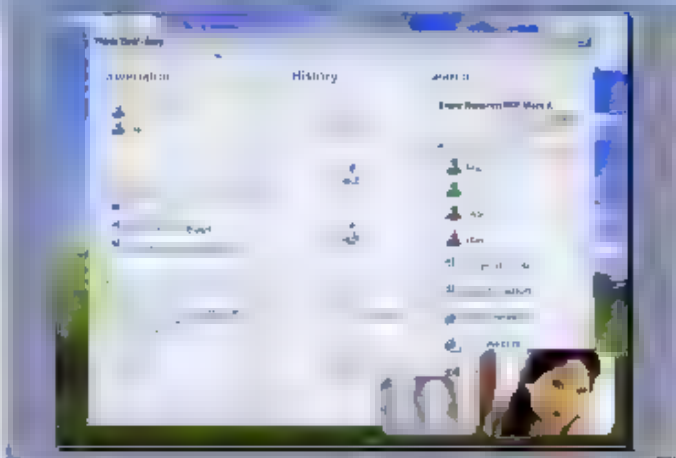
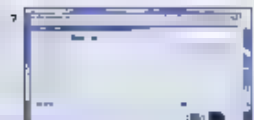
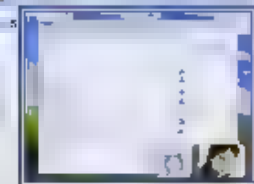
 P&G Website

 chat

10:00 AM - 10:00 AM

10







# THINK TANK

"A great way to get information from those in the know"

Average Rating

5.4

People Search

6.0

Smart Presence

4.9

Personal Networks

( 4.8

Saved Search

5.9



## Raves

- Almost all respondents agree that the current growth of information volume and diversity makes it hard to find information
- Great for urgent situations but important for larger companies with lots of people and info, less critical for smaller companies
- Search capabilities appear easy and fast
- Finding people based on specific expertise, particularly for non-BDMs
- Access to saved searches is a large benefit as people repeat research on the same topic
- Resolving issues in urgent situations



## Rants

- Concern about accuracy of results
- Concern about keeping the info current
- People may not be "online"
- People already know who they work with
- Potential for spam if you're the expert
- Few would use Personal Networks to get info from someone (shouldn't the search capability find this info anyway?)



## Other Insights

- Though this addresses their top pain point the concept was considerably less valuable for Non-RTC Users due to skepticism about the origin and accuracy of information.

## CONTOSO Team Site

### Shared Documents

Product Launch	Bob	Bob
Business Plan	John	
Revenue Projections	David	Andy, John
Sales Forecast	John	John
Projected Revenue	John	

### People Currently Viewing Site

John	John
John	John
John	John
John	John
John	John
John	John

### Recent Activity

7/27 4:55pm	Bob uploaded Revenue Projections
7/28 9:11am	John added Projected Revenue spreadsheet
7/28 9:41am	David edited site
7/28 10:26am	John and Andy edited Revenue Projections

### Video





## 2) CONTOSO Team Site

### Shared Documents

Product Launch	1 user	1 user
Business Plan	1 user	
Revenue Projections	1 user	1 user 1 user
Sales Forecast	1 user	1 user
Projected Revenue	1 user	

### People Currently Viewing Site

1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user

### Recent Activity

7/27 4:55pm	Bob uploaded Revenue Projections
7/28 9:13am	Sam added Projected Revenue spreadsheet
7/28 9:41am	David edited site
7/28 10:26am	Joe and Andy added Revenue Projections




### Video





# LIVE TEAM SITES

"Live Team Sites help you know who is contributing, adding a human touch"

Average Rating	Over-the-Shoulder VoIP	Site-specific Presence	Video Presence	Live Alerts	Document Collaboration
5.3	5.5	5.7	4.0	5.4	6.1
<div><div><b>Raves</b><ul style="list-style-type: none"><li>• Those who work in teams on on ongoing projects reacted very favorably and would use the product</li><li>• Document collaboration was often seen as the main point of real time collaboration - see who is doing what &amp; initiating a meeting</li><li>• Site-specific presence is great for putting voices with names</li><li>• Tracking options allow managers and team leaders to be informed and in control</li><li>• Non-RTM User I/Ws gave slightly higher ratings across all features citing benefits to team organization and project mgmt</li></ul></div><div><b>Rant</b><ul style="list-style-type: none"><li>• Doesn't address issues with time-zones</li><li>• Skepticism over quality of A/V</li><li>• While video was a positive for some telecommuters, most considered it a nuisance or were concerned about privacy</li><li>• Persistent audio considered invasive, though useful in certain cases</li><li>• Live alerts considered interruptive</li></ul></div><div><b>Other Insights</b><ul style="list-style-type: none"><li>• Live team sites will be used more heavily in the context of a task or project centric purpose and the ability to track related project materials (minutes, tasks, etc.)</li></ul></div></div>					

## CONTOSO Team Site

### Shared Documents

Product Launch	1	1
Business Plan	1	1
Revenue Projections	1	1
Sales Forecasts	1	1
Projected Revenue	1	1

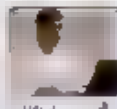
### People Currently Viewing Site

Joe	1
Lauren	1
David	1
Andy	1
John	1
Alice	1

### Recent Activity

2/27 4:55pm	Bob uploaded Revenue Projections
2/28 9:13am	John edited Projected Revenue spreadsheet
2/28 9:41am	John entered site
2/28 10:26am	Joe and Andy edited Revenue Projections

### Video



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## Raves

- Those who work in teams or on ongoing projects reacted very favorably and would use the product
- Document collaboration was often seen as the main point of real time collaboration - see who is doing what & initiating a meeting
- Site-specific presence is great for putting voices with names
- Tracking options allow managers and team leaders to be informed and in control
- Non-RTM User I/Ws gave slightly higher ratings across all features citing benefits to team organization and project mgmt



## Rant

- Doesn't address issues with time-zones
- Skepticism over quality of A/V
- While video was a positive for some telecommuters, most considered it a nuisance or were concerned about privacy
- Persistent audio considered invasive, though useful in certain cases
- Live alerts considered interruptive



## Other Insights

- Live team sites will be used more heavily in the context of a task or project-centric purpose and the ability to track related project materials (minutes, tasks, etc.)

## CONTOSO Team Site

### Shared Documents

Product Launch	1 user	1 user
Business Plan	1 user	
Revenue Projections	1 user	1 user 1 user
Sales by Region	1 user	1 user
Projected Revenue	1 user	

### People Currently Viewing Site

1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user
1 user	1 user

### Recent Activity

2/27 4:55pm	Auto uploaded Revenue Projections
2/28 9:13am	Auto uploaded Projected Revenue Projections
2/28 9:41am	David uploaded...
2/28 10:26am	Joe and Andy edited Revenue Projections

### Video



## Mutual Fund Investment Recommendations

Mutual funds are a great way to gain exposure to a broad range of asset classes. At Sunoco, we offer investment products that select fund categories specifically to outperform the market index. Furthermore, as an advisor in a world of funds, we help to minimize risk.

### Key Criteria

- Hold for long term (5+ years)
- Focus on buy-and-hold investing stocks
- Less volatile than the broad market (S&P 500)
- Low expense ratio (<1%)

### Recommended Funds (equal allocation across)

### Mutual Funds External

100% Participation, 100% Share the Pay



### Internal Experts

100% Buy-and-hold



100% Buy-and-hold

100% Buy-and-hold

### Contacts

100% Contact Clients



### Global

100% Buy-and-hold

100% Buy-and-hold

100% Buy-and-hold

100% Buy-and-hold

100% Buy-and-hold

100% Buy-and-hold



Closely Linked Concept



Loosely Linked Concept



Think Tank Concept

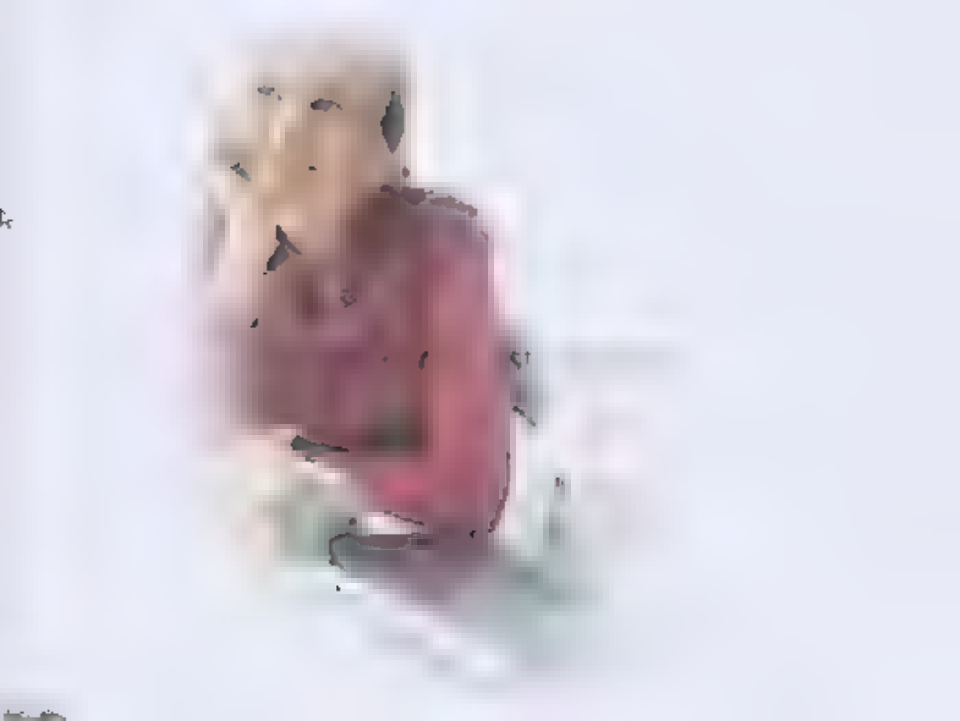


Smart Buddy List Concept



**Live Team Sites Concept**







# SMART BUDDY LISTS

"Concerns regarding the accuracy, relevancy, and integrity of resources could limit use"

Average Rating	Internal Experts	External Experts	Auto Reply Buddies	Dynamic Buddy Lists	Communities of Interest
5.0	5.4	5.3	4.1	5.3	4.8



## Raves

- Very relevant for those creating documents for external consumption (proposals, etc.) or with a lot of external information
- Clear value in terms of saved time and enhanced productivity
- Great for urgent situations
- BDMs found the concept significantly more valuable than IWs



## Other Insights

- Experts need an incentive to be found, or they will "hide" and the value of the network will degrade. This incentive mechanism must be apparent enough to promote use.



## Rants

- Most features polarizing for respondents
- Concerns about accuracy
- Potential for uncovering information you should have
- Effort required to keep current
- Shouldn't people do their own work?
- Tool is complex/confusing
- Communities of interest could make it easier to spam
- Info from a BOT may lack req'd depth
- Surprisingly, Non-RTC Users ranked this concept lower, even though it addresses their top pain points!

# OPPORTUNITIES & CHALLENGES

- ❖ **Clear value propositions**.....people see the **benefits** in Real-Time Collaboration technologies
  - Particularly with better **document collaboration** (through drag & drop, co-editing, etc.) and **finding people/expertise**
- ❖ **Contingencies exist** as precursors to broader adoption, features that are more “control/tracking” features are as important as the real-time collaboration features themselves
  - **Critical Mass, Control, Security, Accuracy**
- ❖ **Asymmetries exist** across audiences, both in terms of decision making authority (BDM vs IW) as well as familiarity with RTC technologies
  - Cultural Barriers
  - Pain Points and Motivations

# ***THANK YOU!!!!***

Watch Them Yourself:

\\rtcplanning\public\RTC Concepts

More Research Available

<http://office/sites/Planning/rtc/concepts/>